

**GASIR® Infrared Lens  
FL 8.5 mm f/1.2**



**Introduction**



Umicore's GASIR® infrared lenses have been developed for an easy fit with a wide range of camera cores. Our catalog lenses provide a cost-effective solution for high-resolution thermal imaging and sensing applications.

This **passively athermalized super-wide-angle infrared lens** guarantees **high resolution** within an image circle of 14 mm. It fits **25 µm qVGA+** and **17 µm VGA** detectors and smaller.

**Optical Specifications**

Focal length	8.52 mm
Aperture-based f-number	f/1.24
Waveband	8-12 µm
Transmission	> 94% average over waveband
Focus range	0.4 m to infinity with 0.16 mm refocus
Assembly weight	34 g

**Field of view**

640 x 480	17 µm	VGA	73.2° (H) x 54.4° (V) - 93.3° (diagonal)
384 x 288	25 µm	qVGA+	64.2° (H) x 48.0° (V) - 81.2° (diagonal)
320 x 240	25 µm	qVGA	53.4° (H) x 40.0° (V) - 67.0° (diagonal)
384 x 288	17 µm	qVGA+	43.5° (H) x 32.7° (V) - 54.4° (diagonal)
320 x 240	17 µm	qVGA	36.3° (H) x 27.3° (V) - 45.4° (diagonal)
160 x 120	17 µm	qqVGA	18.2° (H) x 13.7° (V) - 22.8° (diagonal)

**Environmental Specifications**

Operating temperature	-40 °C to +80 °C
Storage temperature	-57 °C to +105 °C
Vibration	MIL-STD-810E Method 514.4 Proc I Cat 8
Mechanical shock	MIL-E-5400T
Solar radiation	MIL-STD-810G Method 505.5
Sealing	IP67

## Coating

All surfaces

High efficiency anti-reflective coating @ 8-12  $\mu\text{m}$

## Assembly & Interface Specifications

Black anodized aluminium

Image plane-related dimensions valid with 1 mm Ge detector window (not included)

